



Facts About Autism

Definition of Autism

Autism is a term that refers to a collection of neurologically-based developmental disorders in which individuals have impairments in social interaction and communication skills, along with a tendency to have repetitive behaviors or interests. The severity of autism varies greatly, from individuals with little speech and poor daily living skills, to others who function well in most settings. Approximately 70-75 percent of individuals with autism also have mental retardation. Some adults with autism live independently.

How is autism diagnosed?

Autism is typically diagnosed during the toddler or preschool years, although some children are diagnosed at older ages. Language delay or lack of appropriate social development may cause parents or teachers to seek an evaluation. Some children may have a period of normal development before the onset of symptoms and may even lose some earlier acquired skills, such as early words or social smiling. Currently, there is no blood test or other medical test available to diagnose autism. Correct diagnosis depends on extensive and accurate developmental history, as well as observations of the child's social, communicative, and play behaviors.

Number of Children with Autism

It is estimated that about 1 in 1000 children have autism. Also, as many as 2-5 per 1000 children may exhibit some form of the disorder. Developmental disabilities are a diverse group of physical, cognitive, psychological, sensory and speech impairments that are usually identified between birth and up to age 18 years. It is estimated that about 17 percent of all children have a developmental disability, and 2 percent have a serious developmental disability such as mental retardation, cerebral palsy or autism.

Detecting Symptoms

Parents and expert clinicians can often detect symptoms during infancy, although a formal diagnosis is generally not made until the child fails to develop functional language by age two. There are several standard testing instruments that are available to diagnose children by age three.

Experiences of Regression

It has been reported that approximately 20 percent of children with autism experience a "regression;" that is, they have apparently normal development followed by a loss of communication and social skills. These changes are often difficult to verify without knowing the functional status of children before a diagnosis of autism is made.

Boys More Likely Than Girls

Boys are three-to-four times more likely to have autism than girls. Autism occurs in all racial, ethnic, and social groups.

Some Aspects are Treatable

Although there is currently no known cure for autism, some aspects of the condition are treatable. People with autism can make progress if they receive appropriate, individual intervention. Pre-school children who receive intensive, individualized, behavioral interventions show good progress. In addition, limited pharmacological interventions are available to treat symptoms associated with autism.

Causes of Autism

A variety of factors could be associated with some forms of autism, including infectious, metabolic, genetic, neurological, and environmental factors. CDC believes that the current scientific evidence does not support the hypothesis that the measles-mumps-rubella (MMR) vaccine, or any combination of vaccines, causes the development of autism, including regressive forms of autism.

Genetic factors and brain abnormalities at birth are considered to be some of the most recognized causes of autism. In 1995, a working group convened by the National Institutes of Health (NIH) reached a consensus that autism probably results from a genetic susceptibility that involves multiple genes. It is also known that exposure to thalidomide before birth and congenital rubella syndrome (CRS) can cause autism. CRS is a syndrome of multiple birth defects that occurs when a pregnant woman is infected with "wild" rubella virus during the early part of pregnancy.

Fragile X and Rett's Disorder

To date, genetic causes for one disorder commonly accompanying autism and one autism-spectrum disorder have been identified—Fragile X and Rett's Disorder, respectively. Also, several abnormal areas on various chromosomes for more classic autism have been found. Fragile X is the most common genetically inherited form of mental retardation currently known and produces many of the same behaviors and symptoms as autism. Rett Syndrome, which affects only girls, is a progressive brain disease that produces a loss of language/social skills that is similar to autism.

NIH research on possible genetic, infectious, immunological, neurological, and environmental causes and mechanisms of autism is underway.

Sources for Further Information

The CDC's Division of Birth Defects, Child Development, and Disability and Health provides information about autism through their toll-free health line at 1-888-232-6789 and on their web site, at <http://www.cdc.gov/nceh/programs/cddh/dd/ddautism.htm>

For more information on autism and autism research, contact the National Institute of Child Health and Human Development (NICHD) Clearinghouse, at <http://www.nichd.nih.gov/publications/pubs/autism1.htm> 1-800-370-2943

For more information on vaccines and vaccine safety, contact the National Immunization Program (NIP) at 1-800-232-2522 (English) or 1-800-232-0233 (Spanish), or visit the NIP web site at <http://www.cdc.gov/nip>